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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,115

01/03/2005

Olivier Favorel

0518-1080-1

9534

466

7590

05/27/2008

YOUNG & THOMPSON

209 Madison Street

Suite 500

ALEXANDRIA, VA 22314

EXAMINER

VETTER, DANIEL

ART UNIT

PAPER NUMBER

3628

MAIL DATE

DELIVERY MODE

05/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,115	Applicant(s) FAVOREL ET AL.	
	Examiner DANIEL P. VETTER	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of the Claims

1. Claims 11-30 are currently pending in this application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. Claims 11-20 are directed to a "computer program product." However, as the terms "computer program product" appear nowhere in the disclosure, it is impossible to determine if the term "product" refers to a tangible storage medium on which the program is recorded, or if the term "product" refers only to the logic that comprises the software program. Functional descriptive material such as a computer program must be structurally and functionally interrelated with a medium to allow its intended uses to be realized. Accordingly, claims directed to software *per se* are not statutory subject matter. *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (Fed. Cir. 1994). See MPEP § 2106.01 for further guidance and discussion on computer-related nonstatutory subject matter.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 11-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

8. Claims 11-20 are directed to a "computer program product" that "comprises allocation instructions for, when it is executed by a computer" the seat allocation process of the present invention. The originally filed disclosure provides no support for such a product. Paragraph 0032 discloses a storage means (containing a database) and a processor, however there is not support for a "program" with "allocation instructions" that the disclosed processor intended to execute. Accordingly the specification does not convey that such a program was part of the invention, and claims 11-20 are rejected under § 112, first paragraph.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 11-16 and 23-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 11 recites the limitation "the data corresponding to each customer" in lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 12 recites the limitation "the allocation instruction steps" in line 2. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 13 recites the limitation "the customers remaining" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 14 recites the limitation "the group of available seats" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

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15. Claim 15 recites the limitation "the seats whose reservation has been confirmed" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

16. Claim 16 recites the limitation "the allocation instruction steps" in line 2. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 23 recites the limitations "the remaining customers" in lines 3-4 and "the waiting list" in line 4. There is insufficient antecedent basis for these limitations in the claim.

18. Claim 24 recites the limitation "the group of available seats" in line 4. There is insufficient antecedent basis for this limitation in the claim.

19. Claim 25 recites the limitation "the seats whose reservation has been confirmed" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 11, 12, 14-19, 21, 22, and 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, et al., U.S. Pat. No. 2002/0082878 (Reference A of the attached PTO-892) in view of Walker, et al., U.S. Pat. No. 6,112,185 (Reference B of the attached PTO-892).

22. As per claim 11, Boies teaches a computer program product for the allocation of seats to customers in a computerized reservation system, characterized by the fact that it comprises allocation instructions for, when it is executed by a computer (§ 0031):
accessing a database of storage of data relative to placement criteria (§ 0038);
extracting from said database the data corresponding to each customer (§ 0038);
determining a satisfaction value of the customer for a seat, said satisfaction value being a function of the agreement with the placement criteria (§ 0046); accessing with a

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database for storage of a level of priority assigned to each customer (§ 0038); extracting from each database the level of priority corresponding to each customer (§ 0038); for the customer, seeking the available seat having the highest satisfaction value and storing an identification data of said seat in a data table assigned to the customers (§ 0046); repetition of the preceding step for each customer, to effect an allocation of seats to the customers (§ 0038). Boies does not explicitly teach that the seeking step is for the customer having the highest level of priority, and that the repetition for each customer is by decreasing order of priority level; which are taught by Walker (col 6, lines 6-11). It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to incorporate the above teachings of Walker into the product taught by Boies because this is merely a combination of old and already-known elements. In the combination each element performs the same function as it did separately, and one skilled in the art would have recognized that the combination could be implemented through routine engineering and that the results of the combination were predictable.

23. As per claim 21, Boies teaches a process for the allocation of seats to customers, usable with a computerized reservation system, characterized by the fact that it comprises the following allocation steps: assignment, in a database, to each customer, of data relative to placement criteria (§ 0038); determination of a value of satisfaction of the customer for a seat as a function of agreement with the placement criteria (§ 0046), assignment, in a database, to each customer, of a priority level (§ 0038), allocation by an allocation server, to each customer, of the available seat having the maximum satisfaction value (§ 0046). Boies does not explicitly teach that the allocation is by decreasing order of level of priority, which is taught by Walker (col 6, lines 6-11). It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to incorporate the above teachings of Walker into the process taught by Boies because this is merely a combination of old and already-known elements. In the combination each element performs the same function as it did separately, and one skilled in the art would have recognized that the combination could

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be implemented through routine engineering and that the results of the combination were predictable.

24. As per claims 12 and 22, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies further teaches instructions to repeat the allocation instruction steps at each new reservation or cancellation of a seat—and the steps of allocation are repeated upon each new reservation or cancellation of a seat (§ 0028).

25. As per claims 14 and 24, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies further teaches instructions to assign to each seat an inclusion attribute in the group of available seats so as to define the seats available for allocation—and there is assigned to each seat at least one attribute of inclusion in the group of available seats, for the definition of the seats available for allocation (§ 0021).

26. As per claims 15 and 25, Boies in view of Walker teaches the product of claim 14 and process of claim 24 as described above. Boies further teaches instructions to exclude from the group of available seats the seats whose reservation has been confirmed by the customer—and that there is excluded from the group of available seats, the seats whose reservation is confirmed by the customer (§ 0009).

27. As per claims 16 and 26, Boies in view of Walker teaches the product of claim 15 and process of claim 25 as described above. Boies further teaches instructions to repeat the allocation instruction steps for customers whose seat has a confirmed reservation to seek a possible better seat—and for customers whose seat has a confirmed reservation, there is carried out a search procedure for a possible better seat by the steps of allocation (§ 0046).

28. As per claims 17 and 27, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies further teaches the placement criteria comprise data as to region or location of the seats desired by the customer—

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and that the placement criteria comprise data as to zone or location of the seats desired by the customer (§ 0042).

29. As per claims 18 and 28, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies further teaches the placement criteria comprise an adjacency criterion of the customer to at least one other customer (§ 0039).

30. As per claims 19 and 29, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies further teaches instructions to assign, and that there is assigned, to each placement criterion an attribute defining it either as mandatory or as preferred (§§ 0041-43).

31. Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, et al. in view of Walker, et al. as applied to claims 11 and 21 above, further in view of Official Notice.

32. As per claims 13 and 23, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies in view of Walker does not teach instructions to create a waiting list defined by the customers remaining after assignment of all the available seats—and if the available seats are all assigned, placement of the remaining customers on the waiting list. Official Notice is taken that waiting lists are old and well-known in the reservations art. It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to incorporate the above finding of Official Notice into Boies in view of Walker, for example, so that a list of potential passengers in their respective order of priority can be easily accessed in the event that another seat becomes available. Moreover, this is merely a combination of old and already-known elements. In the combination each element performs the same function as it did separately, and one skilled in the art would have recognized that the combination could be implemented through routine engineering and that the results of the combination were predictable.

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33. Claims 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, et al. in view of Walker, et al. as applied to claims 11 and 21 above, further in view of Boies, et al., U.S. Pat. Pub. 2002/0173978 (Reference C of the attached PTO-892) ("Boies II").

34. As per claims 13 and 23, Boies in view of Walker teaches the product of claim 11 and process of claim 21 as described above. Boies in view of Walker does not teach instructions to assign, and that there is assigned, to each placement criterion an attribute of weight for the determination of the satisfaction values; which is taught by Boies II (¶ 0053). It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to incorporate the above teachings of Boies II into Boies in view of Walker because this is merely a combination of old and already-known elements. In the combination each element performs the same function as it did separately, and one skilled in the art would have recognized that the combination could be implemented through routine engineering and that the results of the combination were predictable.

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Douglas, Intl. Pat. Pub. No. WO 03/030072 (Reference N of the attached PTO-892) teaches a seat reservation and allocation process.

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL P. VETTER whose telephone number is (571)270-1366. The examiner can normally be reached on Monday through Thursday from 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628